

BELT CLIP EXTENSION FOR PERSONAL USE DEVICES

FIELD OF THE INVENTION:

[0001] This invention relates to belt clips, and particularly to belt clip extensions that may be used with personal use devices of all sorts such as electronic devices, small tools and implements, and the like as to permit any such item that has a belt clip as an integral part thereof, to be carried in a more convenient fashion near the belt of the wearer, than previously.

BACKGROUND OF THE INVENTION:

[0002] Many people wear or utilize electronic devices of all sorts, which they wish to wear or carry on their person. Among the principal examples of such electronic devices are mobile telephones, sometimes referred to as cellular telephones. Other electronic devices which are worn or carried at the waist of the wearer or user include, particularly, pagers, personal digital assistants, radios, tape players, CD or MP3 players, walkie talkies, and other radio communication devices other than mobile telephones, and the like.

[0003] Still other persons may carry other personal use devices that have a belt clip as an integral part thereof, at their belt. For example, many tradespeople may carry a large tape measure on their belt, or other tool or implement to assist them in the conduct of their trade or profession. Any device or implement or tool that has an integral belt clip may be worn by the user together with the belt clip extension of the present invention, with greater utility of the personal use device and greater comfort to the user, than hitherto.

[0004] Sometimes such personal use devices are worn more or less permanently fixed to a belt, at least while the wearer is in his usual place of work or business, strolling or jogging, shopping, or otherwise desirous of using the electronic device.

Such devices include, particularly, radio and music entertainment devices such as, tape, CD and MP3 players. However, it is sometimes required or desired to remove such device from the belt of the wearer in order to, for example, change the tape, CD, or MP3 disk or memory card that is being played, or such as to make a measurement with a tape measure. Accordingly, such personal use devices are quite often equipped with clips that clip over the belt rather than with loops through which the belt of the wearer will pass.

[0005] For purposes of this discussion, such personal use devices are distinguished from camera cases and purses, and the like, which are typically equipped with a loop through which the belt of the wearer passes, and from which a camera, change purse, documentation, etc, may be withdrawn when needed by opening a pouch.

[0006] On the other hand, many electronic devices such as mobile phones and the like or tools or implements that have integral belt clips, may be constantly clipped to and removed from the belt of the wearer. Sometimes the user of such as a mobile telephone receives a call which she or he does not want to answer at that time, but must remove the mobile phone from the belt in order to observe the call display on the mobile phone in order to determine the identity of the calling party and make a decision whether or not to answer the call. This, in any event, requires that the mobile telephone be removed from the belt of the wearer.

[0007] The present invention overcomes that difficulty by providing a belt clip extension that is flexible and twistable about its longitudinal axis, in a manner that is described in greater detail hereafter.

[0008] Another difficulty with mobile electronic devices of a personal nature, or such as a large taper measure or the like, especially those which are worn on the belt of a user, is that sometimes the user may have a physical or medical ailment or particularly may have a considerable girth, whereby wearing such a mobile electronic device or other tool or implement such as those spoken of herein, can create significant and considerable discomfort to the wearer. This is particularly because the mobile

electronic device or tool or implement is in a fixed and immobile position relative to the belt, when in place, and extends above and/or below the belt so as to contact the wearer in some positions and conditions. For example, for persons of considerable girth, the act of sitting down may cause discomfort due to the top end or bottom end of such as a mobile telephone or a tape measure contacting and effectively "sticking into" the body of the wearer in the general region thereof at or near the waist. Discomfort to the wearer may be effectively overcome by utilization of the present invention.

[0009] The inventor herein has unexpectedly discovered that a belt clip extension may be provided that is used in association with a belt clip which is supplied with and is an integral part of many electronic devices, and other tools and implements, of the sort spoken of herein, whereby an elongate flexible material may be temporarily put into place over the belt of a wearer by having the belt pass through a loop formed in the material, and having the mobile electronic device or other tool or implement suspended from a portion of the flexible belt clip extension in a manner so as to move away from and not interfere with portions of the body of the wearer when the wearer changes his position, particularly such as when moving from a standing to a sitting position or vice versa.

[0010] Moreover, belt clip extensions in keeping with the present invention are particularly durable, so that they may be worn with differing mobile electronic devices, tools, and the like, and will last for a considerable period of time even if put into daily use.

SUMMARY OF THE INVENTION:

[0011] To that event, therefore, the present invention provides a belt clip extension for use with personal use devices having a belt clip as an integral part thereof, whereby a personal use device may be clipped to the belt clip extension and suspended from the belt of a wearer.

[0012] The belt clip extension comprises a strip of an elongate flexible material having flexibility at least in its longitudinal axis. Moreover, the strip of elongate flexible material has the ability to be twisted about its longitudinal axis at least in a first portion thereof at a first end thereof.

[0013] The longitudinal strip has first and second portions which are located at first and second ends of the strip of elongate flexible material, respectively.

[0014] The first portion is wider than the second portion, and the second portion is longer than the first portion.

[0015] The second portion is foldable onto itself so that the second end of the elongate strip is placed near the juncture between the first and second portions.

[0016] Securing means are provided for at least temporarily securing the second portion in its folded condition. Thus, the second end is secured in place near the juncture between the first and second portions.

[0017] A slot is formed through the thickness of the strip in the first portion thereof, in a place which is near the juncture between the first portion and second portion.

[0018] If the second portion is to be placed into its folded condition temporarily, then the securing means may be a dome fastener.

[0019] Otherwise, the securing means may be chosen from the group consisting of rivets and stitching, so that the securement of the first portion in its folded condition is permanent.

[0020] Typically, the material of the elongate flexible material strip is leather.

[0021] However, that material might also be chosen from the group which consists of vinyl, man-made leather substitutes, canvas, plasticized woven glass fibre, nylon, polyurethane, and mixtures thereof.

[0022] The characteristics of the strip of flexible material may be such that it is less flexible in a direction which is across the longitudinal axis of the strip, and more flexible in a direction along or parallel to the longitudinal axis of the strip.

[0023] In general, the width of the slot across the first portion of the strip of flexible material is greater than its height along the longitudinal axis.

BRIEF DESCRIPTION OF THE DRAWINGS:

[0024] The novel features which are believed to be characteristic of the present invention, as to its structure, organization, use and method of operation, together with further objectives and advantages thereof, will be better understood from the following drawings in which a presently preferred embodiment of the invention will now be illustrated by way of example. It is expressly understood, however, that the drawings are for the purpose of illustration and description only and are not intended as a definition of the limits of the invention. Embodiments of this invention will now be described by way of example in association with the accompanying drawings in which:

[0025] **Figure 1** is a plan view of a typical strip of flexible material in its unfolded condition, as used in the manufacture of belt clip extensions in keeping with the present invention;

[0026] **Figure 2** is a side view of a belt clip extension in keeping with the present invention showing also a belt, a personal use device, and its associated belt clip, in ghost outline ;

[0027] **Figure 3** is a perspective view of a belt clip extension in keeping with the present invention showing the manner in which it may be twisted about its longitudinal axis; and

[0028] **Figure 4** is a is a schematic view showing the principal planes of a belt and a belt clip extension in keeping with the present invention, when in use.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS:

[0029] The novel features which are believed to be characteristic of the present invention, as to its structure, organization, use and method of operation, together with

further objectives and advantages thereof, will be better understood from the following discussion.

[0030] A belt clip extension in keeping with the present invention is shown in plan view in Figure 1, at 10; and it is also shown in side view in Figure 2, and in perspective view in Figure 3. It will be noted that the belt clip extension 10 is in its folded condition in each of Figures 2 and 3.

[0031] The belt clip extension comprises two principal portions, 12 and 14, being first and second portions thereof, respectively. First and second ends 16 and 18 define the length of the belt clip extension, when in its plan configuration.

[0032] There is a juncture 20 between the first and second portions 12 and 14, and in some embodiments of belt clip extension in keeping with the present invention fastener means such as those indicated at 24 and 26, which might comprise dome fasteners, may be provided. Alternatively, 24 and 26 can also be considered to be holes through which a rivet may pass, so as to secure the belt clip extension permanently in its folded condition as shown in Figures 2 and 3.

[0033] Yet an alternate manner for permanently securing the belt clip extension in its folded condition, if necessary and desired, is to stitch the material the belt clip in a position shown generally at 28 in Figure 2.

[0034] A slot 22 is formed in the first portion 12 of the belt clip extension 10. It will be seen that generally the slot 22 is formed in the first portion 12 in a position which is near the juncture 20 between the first and second portions 12 and 14, respectively. Thus, a portion or area 30 appears in the first portion 12 which effectively emulates the belt of a wearer for purposes of its relationship to the clip of a mobile electronic device, as described hereafter.

[0035] In use, the belt clip extension 10 assumes a configuration as shown in Figures 2 and 3, where the second portion 14 is folded over in such a manner that the second end 18 is secured in place near the juncture 20 between the first and second portions 12 and 14. That securement may be temporary, such as by dome fasteners 24,

26; or it may be permanent such as by a rivet or stitching, as described above. The permanent configuration with the second portion 14 being in its folded condition is the more usual one.

[0036] In use, the belt clip extension 10 is placed over a belt 50 of the wearer. Then, a personal use device 52, such as a mobile electronic device or a tape measure, which has its own clip arrangement 54, is placed into the belt clip extension 10 so that the device clip 54 cooperates with the slot 22 and the region 30 so as to secure the personal use device 52 to the belt clip extension 10. It will be seen that the region 30 more or less emulates the belt 50.

[0037] However, it will now be seen that there are several distinct advantages that are derived from the use of the belt clip extension 10, in keeping with the present invention. The first is that the material of the belt clip 10 is flexible so that the personal use device 52 can be swung away from the belt 50, in the manner shown by double-headed arrow 60. Thus, if a person such as one having considerable girth about the waist assumes a sitting position, then the personal use device 52 will simply swing away in a clockwise direction in keeping with arrow 60 as seen in Figure 2, and thus the personal use device 52 will not interfere in an uncomfortable manner with the anatomy of the wearer in the waist area. This is in contradistinction to the situation which develops if the personal use device 52 is secured to the belt 50 directly by the clip 54, permitting no such flexibility and no such automatic assumption of a more comfortable position.

[0038] Moreover, the belt clip extension 10 has a longitudinal axis 70, as shown in Figure 3. It may be twist about the longitudinal axis, at least in the first portion thereof where the slot 22 is located, in the manner shown by double-headed arrow 72 in Figures 3 and 4. This is also explained in Figure 4, where a plane 80 having a longitudinal axis 82 is shown in a juncture with the plane 84 having a longitudinal axis 86. The plane 80 could be considered to be that of the belt 50, in the region where the second portion 14 of the belt clip extension 10 overlies the belt, and the plane 84 can be

considered to be the major plane of the belt clip extension 10, when in its folded condition as shown in Figures 2 and 3.

[0039] Double-headed arrow 60 is also shown in Figure 4, for purposes of additional understanding of the manner in which a personal use device 52 may swing away from the belt 50; and double-headed arrow 72 shows the manner in which at least the first portion 12 of the belt clip extension 10 may be twisted about its longitudinal axis 70.

[0040] This latter characteristic and capability of belt clip extension in keeping with the present invention is important when one considers that there may be occasions when it is desired to look at the face of such as mobile electronic device without removing it from the belt clip 10. For example, as noted above, there may be an occasion when the wearer wishes to see the number of the calling party on the call display of a mobile telephone, to decide whether or not to take the call. If so, then it is a simple matter to swing the mobile telephone away from the belt 50, in the manner shown by double-headed arrow 60 and then to twist the belt clip extension 10 so that at least the lower region in the first portion 12 of the belt clip extension 10 twists about the longitudinal axis 70 as shown by double-headed arrow 72, and so that the display region of the mobile telephone is visible.

[0041] Thus, it is seen that a personal use device 52 may be clipped to a belt clip extension 10 and suspended from the belt extension 50 of a wearer. Of course, the personal use device may be removed from the belt clip extension as if it were being removed from a belt, and thus it is not necessary for the belt clip extension 10 to be removed from the belt of the wearer in order for the personal use device 52 to be removed from the belt clip extension 10. Indeed, such arrangement is more easy and comfortable for the wearer, since there is no necessity to disturb that region of the anatomy of the wearer near the belt because the attachment of the personal use device to the belt clip extension 10 is separated away from the belt 50 of the wearer.

[0042] It has been noted that the material of the belt clip extension 10 is flexible, and that it has flexibility at least in its longitudinal axis 70. As well, the material of the belt clip extension 10 has the ability to be twisted about the longitudinal axis 70 at least in the first portion 12.

[0043] It is noted from Figures 1 and 3, in particular, that the strip of flexible material from which the belt clip extension 10 is made is cut in such a manner that the first portion 12 is wider than the second portion 14; and that the second portion 14 is longer than the first portion 12. This may contribute, to some extent, to the flexibility characteristics noted above.

[0044] Typically, belt clip extensions 10 in keeping with the present invention are made from a durable material which has flexibility and yet some stiffness, particularly in a direction across the longitudinal axis 70. A particularly suitable material is leather. However, other suitable materials may include vinyl, other man-made leather substitutes, canvas, plasticized woven glass fibre, nylon, polyurethane, and mixtures thereof. Such materials are mentioned by way of example only and are not intended as any limitation to the practice of the present invention.

[0045] Likewise, securement of the belt clip extension 10 in its folded condition by such means as dome fasteners, rivets, and stitching, are exemplary means for such securement, adhesive being another, and thus are not intended to be limiting in respect of the practice of the present invention.

[0046] It may be, particularly in respect of material such as leather that may have a distinctive grain direction that can be oriented along the longitudinal axis 70, that the material itself may be less flexible in a direction across the longitudinal axis and in a direction along or parallel to the longitudinal axis. Also, the dimensions, including that of the thickness of the material, may contribute to the flexibility in one direction and a lesser flexibility in the cross direction.

[0047] Typically, the shape of the slot 22 is essentially rectangular, such that the width of the slot across the first portion 12 is greater than the height of the slot in the direction of the longitudinal axis 70.

[0048] There has been described a belt clip extension which may be used with various personal use devices which have a belt clip as an integral part thereof, and by which the utility of the personal use device may be enhanced without having to remove it from the belt of the wearer.

[0049] Various alternatives of construction have been described, by way of example only. It will be evident to one skilled in the art that other manners of design and construction may be employed without departing from the spirit of the present invention.

[0050] Thus, other modifications and alterations may be used in the design and manufacture of the apparatus of the present invention without departing from the spirit and scope of the accompanying claims.

[0051] Moreover, use of the terms "he", "him", or "his", is not intended to be specifically directed to persons of the masculine gender, and could easily be read as "she", "her", or "hers", respectively.

[0052] Throughout this specification and the claims which follow, unless the context requires otherwise, the word "comprise", and variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated integer or step or group of integers or steps but not to the exclusion of any other integer or step or group of integers or steps.